

REMARKS

The present amendment is submitted in response to the Office Action mailed May 22, 2002, which set a three-month period for response, making this amendment due by August 22, 2002.

Claims 1 through 10 are pending in this application.

In the Office Action, the specification was objected to for various informalities. The drawings were objected to under 37 CFR 1.83(a) as not showing every feature of the invention as claimed, specifically, the eccentric element being formed directly on the rotor, as recited in claim 10. Claims 5 and 6 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. Claims 1, 2, and 7-10 stand rejected under 35 U.S.C. 1012(b) as being anticipated by U.S. Patent No. 5,479,058 to Seidou. Claims 3, 4, and 6 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Seidou and U.S. Patent No. 3,167,409 to Brucken. Claim 5 was rejected under 35 U.S.C. 103(e) as being unpatentable over Seidou and Brucken.

In this amendment, the specification was amended to address the Examiner's objections. Claims 5 and 6 were amended to provide proper antecedent basis for the objected-to terms.

Filed herewith is a proposed drawing sheet containing new Fig. 4, which shows the embodiment of claim 10 in which the eccentric element is formed directly (i.e., as one-piece) on the rotor.

Turning now to the substantive rejection of the claims, the Applicant respectfully disagrees that the cited references either anticipate or make obvious the present invention, whether viewed alone or in the proposed combinations.

The Seidou patent shows an engine with an integrated drive, in which a stator 21 is arranged on an inner wall of a cylindrical housing. Inside the stator 21, a rotor 24 with permanent magnets 22 is rotatably supported, whereby the inner wall is formed as the inner eccentric element. In column 2, lines 44-51, it is disclosed that inside the "interior eccentric cylindrical surface" of the rotor 24, a "first gear wheel 26" is freely rotatably mounted as an eccentric gear. A "second gear wheel 27" is non-rotatably supported on an axis 36, which is fixedly connected with the housing 22. The freely movable "first gear wheel 26" rolls with its inner teeth on outer teeth of the non-rotatable "second gear wheel 27". The step-down gearing is realized by means of the different number of teeth between the "first gear wheel 26" and the "second gear wheel 27", so that the "second gear wheel 27" rotates more slowly based on the eccentric movement than the armature 24. This slow rotation of the "first gear wheel 26" is transferred onto the drive shaft 30 via a coupling, comprising pins 29 arranged on the "first gear wheel 26", which engaged in holes 28b of the output coupling 28. The "first gear wheel 26", which corresponds to the "eccentric wheel" of the present invention – is specifically set forth in Seidou as freely rotatable within an inner eccentric (see column 2, lines 49-51).

Therefore, the feature of the present invention as defined in claim 1 that "at least one guide bolt (22) which cooperates with the eccentric wheel (10) and

both assures the eccentric motion of the eccentric wheel (10) and prevents an undesired rotation of the eccentric wheel (10)" is neither disclosed nor suggested by the Seidou reference. According to the present invention, a rotation of the eccentric wheel (10) is explicitly prevented by the guide bolts (22), while in Seidou, a rotation of the first gear wheel (26) is imperative, in order to achieve a rotation of the output shaft (30). In addition, according to claims of the present application, the eccentric movement of the eccentric wheels (1) is realized through a guide by means of the guide bolts 22. In Seidou, this eccentric movement is exclusively controlled by the inner eccentric of the rotor 24, whereby the eccentric movement of the first gear wheels 26 is a non-slip, overlaid rotational movement. A further difference in the present invention is that the eccentric wheel 10 is supported on an eccentric element, as defined in claim 1, while in Seidou, the first gear wheel 26 is arranged inside the "interior eccentric cylindrical surface" of the rotor 24. Thus, again, the subject matter of the present invention is new and not anticipated by Seidou.

The Applicant must also respectfully disagree that the combination of the Seidou and Brucken references render the present invention obvious. A practitioner with the problem of inventing a gear drive unit with over 7,000 rotations per minute for window lifting and sliding rod uses in a motor vehicle under requirements of minimal space (see page 1, lines 7-15 of the present application) would not consult the Brucken reference, which describes dryer and washing machine drives with 50 to 1,750 rotations per minute. In addition, a washing machine does not have a similar space problem, so that a practitioner

would receive no teaching from Brucken for a compact construction. Since dryers in the United States operate with 110 volts AC, such a drive represents an essentially different category than an adjustment engine in a motor vehicle, which operates with 12 volts DC. A combination of the two references Seidou and Brucken does not suggest to the practitioner the solution of the present invention and thus represents an unpermitted, retrospective manner of considering the prior art in view of the present invention.


Brucken describes a dryer drive with a reduction gear as the eccentric gear, in which a 110 volt AC motor 62 arranged in an engine housing 58 is driven via a crank shaft 72 of an eccentric gear. The eccentric gear is therefore not arranged in a "free installation space of the rotary drive 3", according to claim 1 of the present application. Rather, Brucken's eccentric gear is arranged axially near the motor 62 in a "speed reducer recess or compartment 76." In the "partition 59" of the engine housing 58 between the engine 62 and the gear, pins 108 are arranged, which engage in ports 16 of a "motion transferring members 96", in order to prevent rotation of the pins. The practitioner, however, does not receive any suggestion from Brucken as to how the pins 108 fixed on the housing with the gear-drive unit of Seidou can be combined, since in Seidou, no fixed housing wall between the engine and gear is provided. By means of the integration of the gear inside the motor (free installation space of the rotary drive), the space of the gear is also closed off axially by the rotating rotor 24, on which no pins fixed on the housing can be secured. The practitioner, then, receives no teaching as to how the housing-fixed pins 108 of an eccentric gear arranged axially near the

engine could be transferred to the invention of Seidou with an eccentric gear arranged within a rotor. Thus, again, this is an unpermitted combination of the Seidou and Brucken references, which does not render obvious the subject matter of claims 1 and 3-5.

For the reasons set forth above, the Applicant respectfully submits that claims 1-10 are indeed patentable over the art of record. The Applicant further requests withdrawal of the rejections under 35 U.S.C. 102 and 103 and reconsideration of the application as herein amended.

In light of the foregoing amendments and arguments in support of patentability, the Applicant respectfully submits that this application now stands in condition for allowance. Action to this end is courteously solicited. Should the Examiner have any further comments or suggestions, the undersigned would very much welcome a telephone call to discuss appropriate claim language that would place the application in condition for allowance.

Respectfully submitted,


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